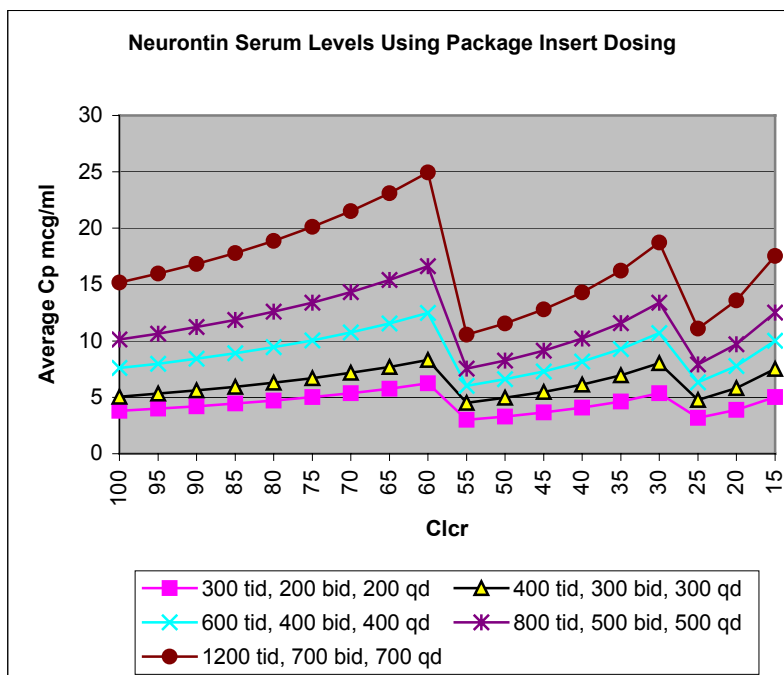
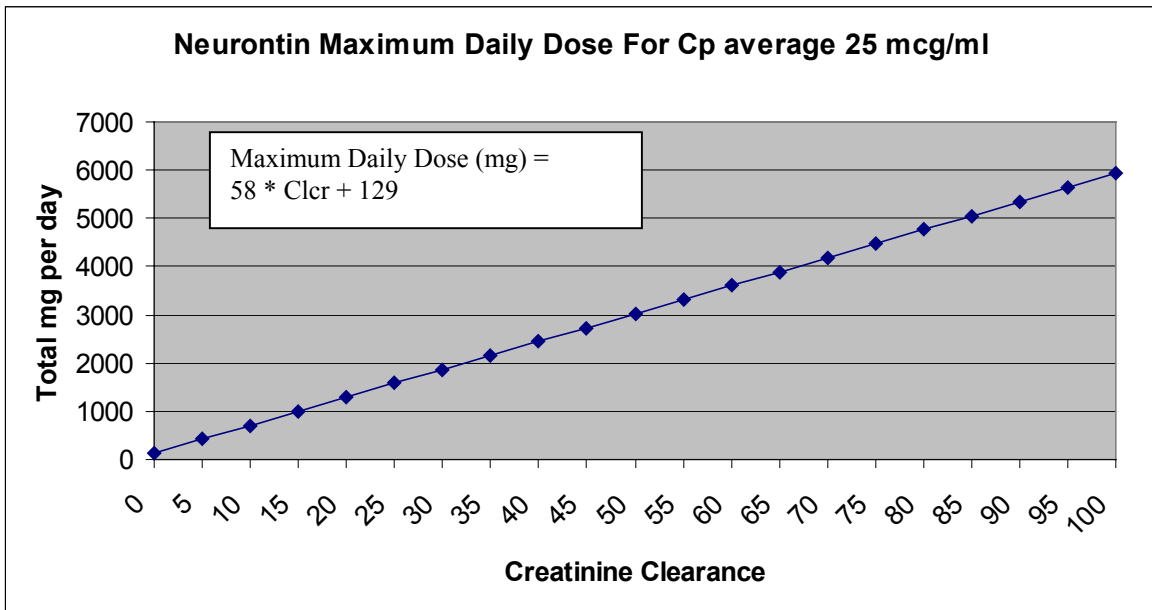


To: All Pharmacists
 Subject: Neurontin Renal Dosing
 From: Marshall Pierce, Clinical Coordinator
 Date: 8/28/06

Gabapentin clearance is linearly proportional to creatinine clearance. It is not metabolized and is excreted unchanged. The half-life is 5-7 hours in normal renal function and 52-131 hours in renal failure. There have been reports of neurologic toxicities associated with gabapentin. Severe asterixis and myoclonus have been reported that abated when the drug was discontinued or the dose was reduced. In patients with normal renal function (Clcr > 60) the maximum serum level obtain is 25 mcg/ml with the FDA approved dosing. The chart or equation below may be used to determine the maximum dose a patient may receive to obtain a level of 25 mcg/ml at different levels of renal function.



Package Insert Dosing Guidelines

TABLE 5. Neurontin[®] Dosage Based on Renal Function

Renal Function Creatinine Clearance (mL/min)	Total Daily Dose Range (mg/day)	Dose Regimen (mg)				
≥60	900-3600	300 TID	400 TID	600 TID	800 TID	1200 TID
>30-59	400-1400	200 BID	300 BID	400 BID	500 BID	700 BID
>15-29	200-700	200 QD	300 QD	400 QD	500 QD	700 QD
15 ^a	100-300	100 QD	125 QD	150 QD	200 QD	300 QD

Post-Hemodialysis Supplemental Dose (mg)^b

Hemodialysis	125 ^b	150 ^b	200 ^b	250 ^b	350 ^b
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^a For patients with creatinine clearance <15 mL/min, reduce daily dose in proportion to creatinine clearance (e.g., patients with a creatinine clearance of 7.5 mL/min should receive one-half the daily dose that patients with a creatinine clearance of 15 mL/min receive).

^b Patients on hemodialysis should receive maintenance doses based on estimates of creatinine clearance as indicated in the upper portion of the table and a supplemental post-hemodialysis dose administered after each 4 hours of hemodialysis as indicated in the lower portion of the table.

References:

Blum RA. Pharmacokinetics of gabapentin in subjects with various degrees of renal function, *Clin Pharmacol Ther.* 1994;56:154-9
 Bookwalter T. Gabapentin-Induced Neurologic Toxicities, *Pharmacotherapy* 2005;25:1817-19